

REMARKS/ARGUMENTS

Claims 1-24 are pending in the present application. The Examiner has rejected claims 1-24. Applicant respectfully requests reconsideration of pending claims 1-24.

The Examiner has objected to the drawings as failing to comply with 37 CFR 1.84(p)(5). Applicant has amended the specification in accordance with the Examiner's instructions. Thus, Applicant submits that the objections to the drawings have been obviated.

The Examiner has objected to claims 1, 4, and 17. Applicant has amended claims 1, 4, and 17 in accordance with the Examiner's instructions. Applicant notes that, as the amendments address only informalities, the amendments are merely cosmetic and do not affect the scope of the claims. Thus, Applicant submits that the objection to claims 1, 4, and 17 has been obviated.

The Examiner has rejected claims 1-24 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,148,001 issued to Soirinsuo et al. in view of U.S. Patent No. 6,026,090 issued to Benson et al. Applicant respectfully disagrees.

Regarding claims 1, 10, and 17, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention. For example, neither of the cited references appears to disclose or suggest the step or function of generating a cell stream for a merged virtual connection based on the prioritization information and virtual connection identities stored in the queue, wherein the merged virtual connection is identified by a merged virtual connection identifier, wherein each cell in the cell stream includes the merged virtual connection identifier. While the Examiner cites VPI/VCI translation 934 in Figure 9 of the Soirinsuo reference as disclosing such a step or function, the only reference Applicant can find in the specification to VPI/VCI translation 934 is the following sentence found in col. 9, lines 39-41: "The intermediate entity 930 includes a controller having a packet scheduler 932 and a VPI/VCI translation entity 934." Likewise, element 934 of Figure 9 is merely an empty rectangle. Applicant can find no description of any functionality ascribed to VPI/VCI translation entity 934. Thus, Applicant submits that the Soirinsuo reference fails to disclose or suggest the above-mentioned step or function. Moreover, the Examiner does not appear to allege that the Benson reference contains any teaching relating to obtaining prioritization information for the merged virtual connection or generating a cell stream for a merged virtual connection based on the prioritization information and virtual connection identities stored in the queue, wherein the merged virtual connection is identified by a merged virtual connection identifier, wherein each cell in the cell

stream includes the merged virtual connection identifier. Thus, Applicant submits that neither Soirinsuo nor Benson, either alone or in combination, renders obvious the above-mentioned step or function.

Also, the Examiner states that Soirinsuo may not specifically disclose queuing the identity in a specific queue configuration. Applicant notes that the Examiner states that Soirinsuo discloses that those skilled in the art will recognize that other methods of obtaining the state of the received cells may be used without departing from the scope of the invention (col. 10, lines 18-21). However, the Examiner does not provide any evidence of any such alleged “other methods” or details as to how any specific alleged “other methods” would relate to the claimed invention. Therefore, Applicant submits that claims 1, 10, and 17 are in condition for allowance.

Regarding claims 2, 14, and 18, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention. For example, while the Examiner cites col. 9, line 33, through col. 10, line 65 of the Soirinsuo reference as teaching the claimed invention as set forth in claims 2, 14, and 18, Applicant can find no disclosure within the cited portion that would teach or suggest the claimed invention. While the assertion that “scheduler functions can be extended to support fair or weighted scheduling, priorities, etc.” (col. 10, lines 30 and 31) occurs within the cited portion, such assertion is not accompanied by any explanation of how such extension would be achieved, nor is any other reference cited to provide such teaching. Moreover, Applicant submits that portions of the Soirinsuo reference cited by the Examiner do not appear to disclose features of the base claims from which claims 2, 14, and 18 depend, as noted above. Thus, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention as set forth in claims 2, 14, and 18. Therefore, Applicant submits that claims 2, 14, and 18 are in condition for allowance.

Regarding claims 3, 11, 13, and 19, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention. For example, the Examiner has stated, “...Soirinsuo may not specifically disclose queuing the identity (e.g., VCI) in a specific queue configuration....” Yet, the Examiner does not offer evidence of “...wherein queuing the identity of a virtual connection further comprises queuing the identity of the virtual connection into a corresponding one of the plurality of queues based on class of the virtual connection....” Thus, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention as

set forth in claims 3, 11, 13, and 19. Therefore, Applicant submits that claims 3, 11, 13, and 19 are in condition for allowance.

Regarding claims 4, 12, and 20, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention. For example, while the Examiner cites “complete pointer 128” as teaching “the plurality of queues is a linked list configuration,” Applicant notes that, as an example, claim 4 states, “...wherein each of the plurality of queues is a linked list, wherein queuing identify of a virtual connection further comprises appending the identity of the virtual connection to a tail of a corresponding one of the linked lists based on class of the virtual connection.” Applicant submits that the cited portion of the Benson reference fails to disclose such teaching. For example, the cited portion of the Benson reference states, “A receive local buffer 122 joined to the complete queue 124 preferably has a complete pointer 128 to a next receive local buffer 122 in the complete queue 124,” while, for example, claim 12 states, “identity of a particular virtual connection to which the complete packet corresponds is added to a tail of the linked list for a class to which the particular virtual connection corresponds.” Thus, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention as set forth in claims 4, 12, and 20. Therefore, Applicant submits that claims 4, 12, and 20 are in condition for allowance.

Regarding claims 5 and 21, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention. Applicant has presented arguments for the allowability of claims 1 and 3, from which claim 5 depends, and claims 17 and 19, from which claim 21 depends. Thus, Applicant submits that claims 5 and 21 are also in condition for allowance.

Regarding claims 6 and 22, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention. For example, Applicant cannot find any evidence in the cited portion of the Soirinsuo reference of “referencing a prioritization table that stores an accessing sequence for the plurality of queues.” Rather, Soirinsuo et al. merely refer vaguely to “...scheduler functions [that] can be extended to support fair or weighted scheduling, priorities, etc.” without explanation of how such functions are to be implemented, nor is any other reference cited to provide such teachings. Thus, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention as set forth in claims 6 and 22. Therefore, Applicant submits that claims 6 and 22 are in condition for allowance.

Regarding claims 7 and 23, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention. For example, Applicant has presented arguments for the allowability of claim 1, from which claim 7 depends, and claim 17, from which claim 23 depends. Thus, Applicant submits that claims 7 and 23 are also in condition for allowance.

Regarding claims 8 and 24, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention. For example, Applicant has presented arguments for the allowability of claim 1, from which claim 8 depends, and claim 17, from which claim 24 depends. Thus, Applicant submits that claims 8 and 24 are also in condition for allowance.

Regarding claim 9, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention. For example, while the Examiner asserts that “450 VCC₁” of Soirinsuo constitutes teaching of a merged virtual connection, Applicant notes that col. 8, lines 15-18, teaches away, stating, “The ATM switching system 430 then routes the cells from each AAL-5 connection source 402-410 to an AAL-5 connection destination 440 by using n VCCs 450.” Furthermore, the Examiner acknowledges that Soirinsuo may not specifically disclose that, “e.g., a first virtual connection (e.g., VCC₁) comprises a merged virtual connection and that the merged virtual connection is further merged with a second virtual connection.” Thus, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention as set forth in claim 9. Therefore, Applicant submits that claim 9 is in condition for allowance.

Regarding claims 15 and 16, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention. For example, the Examiner acknowledges that the Soirinsuo reference may not specifically disclose that the location of the virtual connection merging system is limited to specifically either the ingress portion or the egress portion of the communication switch. While the Examiner asserts that it is well known in the art for such a system to be located in the ingress or egress portion of a communication switch, the Examiner does not cite any references to support such assertion. Thus, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention as set forth in claims 15 and 16. Therefore, Applicant submits that claims 15 and 16 are in condition for allowance.

In conclusion, Applicant has overcome all of the Office's rejections, and early notice of allowance to this effect is earnestly solicited. If, for any reason, the Office is unable to allow the

Application on the next Office Action, and believes a telephone interview would be helpful, the Examiner is respectfully requested to contact the undersigned attorney.

Respectfully submitted,

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